Transactions of the Illinois State Academy of Science
(1990), Volume 83, 1 and 2, pp. 101-103

Schrankiana schranki (Travassos, 1925) Strand, 1942 (Nematoda: Atractidae in *Leptodactylus mystaceus* (Spix, 1824) from Santa Cecilia, Napo Province, Ecuador

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ABSTRACT

One of five *Leptodactylus mystaceus* (Spix, 1824) collected from Santa Cecilia, Napo Province, Ecuador was infected with *Schrankiana schranki* (Travassos, 1925) Strand, 1942. This constitutes a new host record for this nematode.

INTRODUCTION

The geographic distribution of *Schrankiana schranki* (Travassos, 1925) Strand, 1942 has thus far been limited to leptodactylid anurans of South America and in particular Brazil and Ecuador. This nematode was first described from the large intestine of *Leptodactylus pentadactylus* (Laurenti, 1768) of Brazil by Travassos (1925) who named it *Schrankia schranki*. Strand (1942) noted that *Schrankia* was preoccupied and renamed it *Schrankiana*. Travassos (1949) inadvertently proposed the name *Schranknema*. The two genera are synonymous with *Schrankiana* Strand, 1942 having priority. It has since been reported in *L. pentadactylus* of Sao Paulo, Brazil by Freitas (1959) and subsequently in the same host of Napo Province, Ecuador by Dyer and Altig (1977). The present report is concerned with the detection of *S. schranki* in *Leptodactylus mystaceus* (Spix,1824) of Santa Cecilia, Napo Province, Ecuador.

MATERIALS AND METHODS

Five *Leptodactylus mystaceus* collected in Santa Cecilia, Napo Province, Ecuador were examined for helminths. Nematodes detected in the large intestine of one frog were fixed in hot glycerin-alcohol (nine parts 70% ethanol and one part glycerin) and cleared for study in glycerin. Representative specimens have been deposited in the Helminthological Collection of the Zoological Museum, Southern Illinois University at Carbondale, No. 121A.0.

RESULTS AND DISCUSSION

Several male and female specimens of *Schrankiana* Strand, 1924 were detected in the large intestine of one of five *Leptodactylus mystaceus* captured in Santa Cecilia, Napo Province, Ecuador. These agree with the description of *Schrankiana schranki* as given by Travassos (1925) and later by Freitas (1959).

Four additional species of *Schrankiana* have been reported from leptodactylid anurans. Freitas (1959) described *Schrankiana formosula* from *Leptodactylus fuscus* (Schneider, 1799) = (*L. typhonius* Boulenger 1882) of Itaguai, Rio de Janeiro, Brazil. *Schrankiana freitas* was described from the large intestine of *L. pentadactylus* of Exu, Pernambuco, Brazil by Baker (1982). *Schrankiana inconspicata* was described from *Leptodactylus labyrinthicus* (Spix, 1824) and *L. pentadactylus* of Salvador, Bahia (type locality); Salobra, Mato Grosso; Belo Horizonte, Minas Gerais; Pirassununga, Sao Paulo; and Cachimbo, Para, Brazil by Freitas (1959). *Schrankiana formosula*, *S. freitas*, and *S. inconspicata* have not subsequently been reported in anurans. *Schrankiana larvata* (Vaz, 1933) Fahel, 1952 was described from *L. pentadactylus* of Belo Horizonte, Minas Gerais and Pirassununca, Sao Paulo, Brazil. Subsequent reports include *Leptodactylus fuscus* [=*L. sibilatrix* (Weid, 1824)], *L. pentadactylus* and *L. labyrinthicus* of Salvador, Bahia; Urucum, Mato Grosso; and Cachimbo, Para, Brazil (Fahel 1952; Freitas 1959; Guimaraes et al. 1976). *Schrankiana schranki* is easily differentiated from other species in having large spicules.

The finding of *S. schranki* in *L. mystaceus* constitutes a new host record for this parasite. Reports of *Schrankiana* spp. in anurans thus far indicate that they are confined to frogs of the genus *Leptodactylus* and specifically to *L. pentadactylus*, *L. fuscus*, *L. labyrinthicus* and *L. mysticus* of South America. Since the geographic distribution of leptodactylid anurans includes Central America and the southern part of North America, hosts in these areas may also be infected with this nematode.

ACKNOWLEDGEMENTS

The author is grateful to Dr. Ronald Altig, Department of Zoology, Mississippi State University, Mississippi State, Mississippi 39762 for providing specimens of *Leptodactylus mystaceus*.

LITERATURE CITED

Baker, M. R. 1982. Nematode parasites of frogs. In Dieuxième Symposium sur la Spécificité Parasitaire des parasites de Vertébrés, 13-17 April 1981. Mem. Mus. Natn. Hist. Nat., Ser. A, Zool. 123:265-270.

Dyer, W..G. and R..A. Altig. 1977. Helminths in some Ecuadorian anurans. Herpetologia 33:293-296.

Fahel, J. 1952. Fauna helminthólgica das "gigas" de Salvador (*Leptodactylus pentadactylus*). An. Acad. Brasil. Cien. 24:389-436.

Freitas, J.F.T. 1959. Estudos sôbre Schrankianidae fam no. (Nematoda, Subuluroidea). Arq. Mus. Nac. Rio de Janeiro 49:9-67.

Guimaraes, J.F., R. Cristofaro and H. O. Rodriques. 1976. Alguns nematódeos de anfíbos de Salvador, Bahia. Atas Soc. Biol. Rio de Janeiro 18:71-74.

Strand, E. 1942. Miscellaneous nomenclatorica zoologica et palaeonlological. Folia Zool. Hydrobiol. Riga 2:386-408.

Travassos, L. 1925. Contribuicões para o conhecimento da fauna helminthológica dos batraquios do Brasil. Sci. Med. 9:673-687.

Travassos, L. 1949. Contribuicão ao conhecimento da fauna helminthológica dos peixes d'auga dôce do Brasil. IV. Dois novos gêneros de Cosmocercidae (Nematoda) e uma nota de nomenclatura helminthológica. Mem. Inst. Oswaldo Cruz. 46:633-637.

Vay, Z. 1933. Nôvo cosmocercideo de *Leptodactylus pentadactylus*. Rev. Med. Cirurg. Brasil. 41:5-7.